

WHAT IS CLAIMED IS:

1. A motor defining an axial direction, the motor comprising:
 a plurality of core pairs, each of the core pairs consisting of an inner
 5 core and an outer core, arranged next to each other along the axial direction
 such that the inner cores are in contact with each other;
 a coil wound around each of the core pairs; and
 a case formed from a magnetic material that covers the coils wherein
 the case is welded to at least the inner cores to form two independent
 10 magnetic circuits formed by the inner cores, the case and the outer cores.

2. A motor according to claim 1, wherein the case is welded to the
 outer cores.

15 3. A motor according to claim 1, wherein each of the inner cores
 and each of the outer cores has teeth-like poles;

the teeth-like poles on the inner cores and the teeth-like poles on the
 outer cores are alternately disposed to face a rotor magnet of a rotor that is
 disposed inside the plurality of core pairs; and

20 the case is commonly affixed to outer circumference sections of the
 inner cores and outer cores that form the plurality of core pairs.

4. A motor according to claim 3, wherein the case is formed from a
 curled thin plate.

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5. A motor according to claim 4, further comprising connection
 terminals to supply current to the coils connected to the inner cores and the
 outer cores, wherein the case has an arc-shape to leave an opening for the
 connection terminals.

6. A motor according to claim 5, wherein the arc-shaped case has end sections, and the case and the inner cores are welded at welding spots at the end sections of the arc-shaped case and at a midpoint in the circumferential direction between the end sections of the arc-shaped case.
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